Congress of the United States
Washington, DC 20515

April 25, 2005

One Nation, One Science Policy

Dear Colleague,

As we debate federal policies that regulate embryonic stem cell research, it is important to bear in mind the developments taking place at the state level. We believe it is important to pursue this research in a consistent, ethical, regulated manner. The National Institutes of Health (NIH), as the steward of biomedical research for the nation, must be allowed to collaborate with those engaging in such cutting-edge research as embryonic stem cell research. We would like to call your attention to William R. Brody's March 3 op-ed from the *Baltimore Sun* (see reverse).

The current embryonic stem cell policy must be changed. We must be consistent in our efforts to develop one national science policy. We hope you will join us in cosponsoring H.R. 810, the Castle-DeGette "Stem Cell Research Enhancement Act." This bill provides for an expanded embryonic stem cell research policy and requires that strong ethical standards be implemented. For more information, contact Amy Judge with Congressman Langevin at (202) 225-5976 or Jared Paige with Congressman Schwarz at (202) 225-6281.

Sincerely,

James R. Langevin
Member of Congress

Joe Schwarz
Member of Congress

One Nation, One Science Policy

By William R. Brody

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Not all tourism is a good thing. There is a new, insidious tourism that poses a real and growing threat to the mission and values of American science.

In statehouses from Albany to Sacramento, legislators and sometimes the general public are taking on a new role. They are inviting themselves into our laboratories to prescribe what kinds of research we should or should not do. Call it scientific tourism. Sometimes they visit to advance a particular line of research or kind of approach. Other times, they drop by to prohibit it.

In either case, by trying to bend the course of research, they end up warping the structure of science. And this should be of concern to us all. Our goal should be one national policy on science.

Instead, we are creating, on an ad hoc basis, a hodgepodge of local legislation, control and restriction that does not recognize the fundamentally porous nature of modern science. Scientific discovery today is collaborative and interdisciplinary. It bridges fields of knowledge and often operates across states and even countries of origin. But now a Johns Hopkins scientist in Baltimore collaborating with a colleague at Yale may find herself committing a crime because of the nature of the work done in the other lab — or vice versa.

Picture a research scientist flying from Baltimore to California to work on stem cell research using human embryos. He changes planes in Cincinnati. Unknown to him, the Cincinnati airport is located in Kentucky. As he gets off the plane with tissue samples in his briefcase, state agents arrest him for transporting prohibited research materials.

It may sound improbable. But it should be impossible. Consider that Kentucky last year passed a fetal homicide bill that confers human status on in-utero fertilized eggs from the moment of conception and imposes a penalty of capital punishment for destroying them. Five other states have prohibited therapeutic cloning. South Dakota specifically forbids research on embryos. Massachusetts Gov. Mitt Romney wants to ban therapeutic cloning in one of the top states for medical research.

Historically, science and society have been served well by having one national policy guiding scientific research. But soon, scientists may find it necessary to do their basic research in San Francisco, animal studies in Minneapolis and clinical trials in Baltimore — great for airlines, but not necessarily for science or society.

Legislators as scientific tourists pose an even greater threat to the basic philosophy of science. Scientists know that the results of their efforts are often unpredictable. They start with an idea, perhaps a hypothesis, and if they're lucky they are able to contribute to an evolving body of knowledge by showing that something is or is not true.

Sometimes they stumble into results that go against established scientific dogma. A lot of people will want to challenge their findings. They have to be prepared for exacting scrutiny and rigorous debate. This is the foundational method of science, and it gives us a neat and easy way of determining good science from bad. Good science holds up. Bad science doesn't.

When state officials want to support or inhibit science specifically to support certain ideologies or beliefs, we are starting down a slippery slope. Politicians must answer to public opinion. That is their function. Scientists owe their allegiance to measurable truth. This is the house we live in. Fundamentally, at some level, we come from different places. If scientific theories were to be decided by popular opinion, the world would still be flat. But we have proved otherwise.

In many fields of research today, the ethical challenges are as important — and as difficult — as the scientific ones. I don't wish to minimize either. Nor do I wish to suggest that scientists alone should decide these ethical issues. These are problems we must resolve as a nation. But let's make sure that scientists take part in the discussion. On all these issues, they have important and insightful things to say.

Having just one national science policy has served us tremendously well. Those of us in the scientific community need to encourage our federal government to develop sound science policy for the public good. Otherwise, scientific tourists might decide that the best science is that which most pleases the folks back home.

Willam R. Brody is president of the Johns Hopkins University.